EPA. 1981. Potential Hazardous Waste Site Identification and Preliminary Assessment. Delta Shipyard. Houma, Terrebonne Parish, Louisiana. LAO1317. April 1992. Pages: 7.

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EPA. 1994. Site Inspection Prioritization Report. Delta Shipyard, Phase III. Houma, Louisiana. December 1994. Pages: 57.

EPA. 1996. Expanded Site Inspection Report (excerpts). Delta Shipyard, Houma, Louisiana. December 1996. Pages: 560.

EPA. 2013. Trip Report for Delta Shipyard Reassessment. 200 Dean Court, Houma, Terrebonne Parish, Louisiana. 26 March 2013. Pages: 1152

History from HRS page 7

1981 – EPA contractors performed a primary assessment of the Site and found that contamination of surface water could occur if the pits overflowed, and they found some staining of soil from oily wastes in the pits (Ref. 5, p. 2).

• **1983** - The Louisiana Department of Natural Resources (LDNR) performed an inspection of the Site and subsequently issued a Notice of Violation (NOV). Eight violations were cited; among these violations were "that there was no indication that the facility was having their waste treated, stored, or disposed of at a permitted hazardous waste facility, and the facility has not developed and adhered to a ground water sampling and analysis plan" (Ref. 8, pp. 1,2).

• **1985** - Wink Engineering collected one composite sludge sample from each of the three pits. A report prepared by Wink Engineering indicated that the contents of the pits were exposed. The samples were analyzed for volatiles, cyanide, total phenol, flash point, pH, toxicity, and oil and grease (Ref. 9, p. 5). Concentrations of chlorobenzene, ethylbenzene, toluene, and total xylenes were detected in the samples collected from the open pits (Ref. 9, p. 36). Wink Engineering concluded in the report that the Site did not pose a threat to human health or the environment since the constituents did not exceed limits specified in the Wink Engineering report (Ref. 9, p. 5). The nature of the specific limits were not defined in the Wink report (i.e., calculated background values, health-based screening levels, etc.).

• **1986** - The Louisiana Department of Environmental Quality (LDEQ), formerly LDNR, received a complaint about pits containing hazardous waste. A composite sample was collected from the three open pits and analyzed for volatiles, metals, and polychlorinated biphenyls
(Ref. 10, pp. 1-4). Laboratory analytical information could not be found in the file information.

• **1994** – EPA contractors conducted sampling at the pits in support of a Site Inspection Prioritization (SIP) Report. A limited number of pit sludge and drainage ditch sediment samples were collected in and around the pits (Ref. 11, pp. 6, 15). During field activities, water was observed flowing from an overflow pipe from Pit 2 into the nearby drainage ditch (Ref. 11, p. 7). The sludge samples collected from the exposed pits indicated the presence of volatiles, semivolatile organics, pesticides, and metals. Sediment analytical results meeting HRS observed release criteria of three times background included benzene, ethylbenzene, xylenes, 2-methylnaphthalene, polycyclic aromatic hydrocarbons (PAHs), arsenic, chromium, lead, and mercury (Ref. 11, pp. 5, 16-51).

• **1996** – EPA contractors conducted an Expanded Site Inspection (ESI) of Delta Shipyard. As part of the ESI, 7 pit sludge samples, 6 surface and subsurface soil samples, 2 ground water samples, 4 surface water samples, 37 stream sediment samples, and 6 field Quality Control samples were collected (Ref. 12, pp. 24, 32-37). The pit sludge sample results indicated elevated concentrations of 2-methylnaphthalene, naphthalene, phenanthrene, ethylbenzene, toluene, xylenes, chromium, lead, and zinc. Of these, the highest concentrations were the PAHs (Ref. 12, p. 40). In addition, samples collected from ground water, surface water, and soil indicated an elevated presence of PAHs, indicating migration of these contaminants from the pits to the surrounding media (Ref. 12, p. 57).

Removal Assessment